RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Source: //Twp Date Processed by STIC: 2/27/06	Application Serial Number:	10/567.764
Date Processed by STIC: 2/27/06	Source:	IFINP,
	Date Processed by STIC:	2/27/06

ENTERED



IFWP

RAW SEQUENCE LISTING DATE: 02/27/2006
PATENT APPLICATION: US/10/567,764 TIME: 14:43:11

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

```
3 <110> APPLICANT: Flannery, Carl R
             Corcoran, Christopher J
              Freeman, Bethany A
             Racie, Lisa A
     8 <120> TITLE OF INVENTION: RECOMBINANT LUBRICIN MOLECULES AND USES THEREOF
     10 <130> FILE REFERENCE: 19003-002US1
C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/567,764
C--> 12 <141> CURRENT FILING DATE: 2006-02-10
    12 <150> PRIOR APPLICATION NUMBER: PCT/US2004/026508
    13 <151> PRIOR FILING DATE: 2004-08-13
    15 <150> PRIOR APPLICATION NUMBER: US 60/495,741
    16 <151> PRIOR FILING DATE: 2003-08-14
    18 <160> NUMBER OF SEQ ID NOS: 29
    20 <170> SOFTWARE: PatentIn version 3.3
    22 <210> SEO ID NO: 1
    23 <211> LENGTH: 155
    24 <212> TYPE: DNA
    25 <213> ORGANISM: Artificial
    27 <220> FEATURE:
    28 <223> OTHER INFORMATION: Nucleotide sequence of synthetic cDNA cassette-1.
    30 <400> SEQUENCE: 1
    31 egegeceaca actecaaaag agecegeace taccaegaca aagteagete etactaegee
    33 caaagagcca gegeegaega etactaaaga aceggeaece aceaegeeta aggageeage
                                                                              120
    35 tectactaca acgaaacegg caccaaceae teegg
                                                                              155
    38 <210> SEQ ID NO: 2
    39 <211> LENGTH: 51
    40 <212> TYPE: PRT
    41 <213> ORGANISM: Artificial
    43 <220> FEATURE:
    44 <223> OTHER INFORMATION: Translation of SEQ ID NO: 1.
    46 <400> SEQUENCE: 2
    48 Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Lys Ser Ala
    49 1
    51 Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Lys Glu Pro Ala
    52
                                        25
    54 Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Lys Pro Ala Pro
                                    40
    55
               35
                                                        45
    57 Thr Thr Pro
    58
           50
    61 <210> SEO ID NO: 3
    62 <211> LENGTH: 125
    63 <212> TYPE: DNA
```

64 <213> ORGANISM: Artificial

DATE: 02/27/2006

TIME: 14:43:11

Input Set : A:\19003-002US1.txt Output Set: N:\CRF4\02272006\J567764.raw 66 <220> FEATURE: 67 <223> OTHER INFORMATION: Nucleotide sequence of synthetic cDNA cassette-2. 69 <400> SEQUENCE: 3 70 taaagaacca gccctacta cgacaaagga gcctgcaccc acaaccacga agagcgcacc 60 72 cacaacacca aaggageegg cecetaegae teetaaggaa eecaaacegg caccaaceae 120 125 74 tccqq 77 <210> SEQ ID NO: 4 78 <211> LENGTH: 41 79 <212> TYPE: PRT 80 <213> ORGANISM: Artificial 82 <220> FEATURE: 83 <223> OTHER INFORMATION: Translation of SEO ID NO: 3. 85 <400> SEQUENCE: 4 87 Lys Glu Pro Ala Pro Thr Thr Thr Lys Glu Pro Ala Pro Thr Thr Thr 88 1 5 90 Lys Ser Ala Pro Thr Thr Pro Lys Glu Pro Ala Pro Thr Thr Pro Lys 25 91 20 93 Glu Pro Lys Pro Ala Pro Thr Thr Pro 35 97 <210> SEQ ID NO: 5 98 <211> LENGTH: 8049 99 <212> TYPE: DNA 100 <213> ORGANISM: Artificial 102 <220> FEATURE: 103 <223> OTHER INFORMATION: pTmed2 vector containing recombinant PRG4-Lub:1 cDNA construct. 105 <400> SEQUENCE: 5 60 106 catatgcggt gtgaaatacc gcacagatgc gtaaggagaa aataccgcat caggcgtact 108 gagtcattag ggactttcca atgggttttg cccagtacat aaggtcaata ggggtgaatc 120 110 aacaggaaag teccattgga gecaagtaca etgagteaat agggaettte cattgggttt 180 112 tgcccagtac aaaaggtcaa tagggggtga gtcaatgggt ttttcccatt attggcacgt 240 300 114 acataaggtc aataggggtg agtcattggg tttttccagc caatttaatt aaaacgccat 116 gtactttccc accattgacg tcaatgggct attgaaacta atgcaacgtg acctttaaac 360 118 ggtactttcc catagctgat taatgggaaa gtaccgttct cgagccaata cacgtcaatg 420 120 ggaagtgaaa gggcagccaa aacgtaacac cgccccggtt ttcccctgga aattccatat 480 122 tggcacgcat tctattggct gagctgcgtt ctacgtgggt ataagaggcg cgaccagcgt 540 124 eggtacegte geagtetteg gtetgaceae egtagaaege agageteete getgeageee 600 126 aagetetgtt gggetegegg ttgaggacaa actettegeg gtettteeag taetettgga 660 128 teggaaacce gteggeetee gaacggtaet eegecacega gggaeetgag egagteegea 720 780 130 tcgaccggat cggaaaacct ctcgactgtt ggggtgagta ctccctctca aaagcgggca 132 tgacttctgc gctaagattg tcagtttcca aaaacgagga ggatttgata ttcacctggc 840 134 ccgcggtgat gcctttgagg gtggccgcgt ccatctggtc agaaaagaca atctttttgt 900 136 tgtcaagett gaggtgtgge aggettgaga tetggecata caettgagtg acaatgacat 960 1020 138 ccactttgcc tttctctcca caggtgtcca ctcccaggtc caactgcaga cttcgaattc 140 tactgagtcg acceaccatg gcatggaaaa cacttcccat ttacctgttg ttgctgctgt 1080 142 ctgttttcgt gattcagcaa gtttcatctc aagatttatc aagctgtgca gggagatgtg 1140 144 gggaagggta ttctagagat gccacctgca actgtgatta taactgtcaa cactacatgg 1200 146 agtgctgccc tgatttcaag agagtctgca ctgcggagct ttcctgtaaa ggccgctgct 1260 148 ttgagtcctt cgagagaggg agggagtgtg actgcgacgc ccaatgtaag aagtatgaca 1320 150 agtgctgtcc cgattatgag agtttctgtg cagaagtgca taatcccaca tcaccaccat 1380

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/567,764

RAW SEQUENCE LISTING DATE: 02/27/2006
PATENT APPLICATION: US/10/567,764 TIME: 14:43:11

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

152	cttcaaagaa	agcacctcca	ccttcaggag	catctcaaac	catcaaatca	acaaccaaac	1440
			aagaagaaga				1500
			gaaaatcaag				1560
158	cgtcgtcgac	aatttggaaa	atcaagtctt	ccaaaaattc	agctgctaat	agagaattac	1620
	-	_	gataacaaga	-	_		1680
162	aaccaccagt	tgtagatgaa	gctggaagtg	gattggacaa	tggtgacttc	aaggtcacaa	1740
164	ctcctgacac	gtctaccacc	caacacaata	aagtcagcac	atctcccaag	atcacaacag	1800
			cccagtcttc				1860
168	ctttgacagt	gaataaagag	acaacagttg	aaactaaaga	aactactaca	acaaataaac	1920
170	agacttcaac	tgatggaaaa	gagaagacta	cttccgctaa	agagacacaa	agtatagaga	1980
172	aaacatctgc	taaagattta	gcacccacat	ctaaagtgct	ggctaaacct	acacccaaag	2040
174	ctgaaactac	aaccaaaggc	cctgctctca	ccactcccaa	ggagcccacg	cccaccactc	2100
176	ccaaggagcc	tgcatctacc	acacccaaag	agcccacacc	taccaccatc	aagagcgcgc	2160
			gcacctacca	_	_		2220
			aaagaaccgg				2280
			accactccgg				2340
184	ctactccaac	taccaccaag	gagcctacca	ctatccacaa	aagccctgat	gaatcaactc	2400
			acaccaaaag				2460
			gcggcgacta				2520
			cgtactacac				2580
		-	acagaaaaaa	_			2640
	_		actcaagata				2700
		_	gtaactacaa	-			2760
			gctaaaccaa				2820
		_	accaaagcac			_	2880
	_		aaaccaaaga	_		-	2940
		_	acctcaagaa	-	_		3000
			tccaaactag				3060
			cctcatatgc				3120
	_		ttaccgagag				3180
			atatgcaatg				3240
			ttccgaggtc				3300
			attactgaag				3360
			gaaggaaaaa				3420
			gatgcagggt				3480
			gcagcgcttt		_		3540
			ggtggcagca				3600
			aggcctgctc				3660
			gaacgtgcta				3720
			ctggcttatc				3780
			ggacttccaa		_		3840
	_		tatgattact	_	_		3900
			gcaagagcaa				3960
			taagcggccg				4020
			gcgtttgtct				4080
			aaacctggcc	_			4140
			atgcaaggtc				4200
			acaacgtctg				4260
248	cacctggcga	caggtgcctc	tgcggccaaa	agccacgtgt	acaagacaca	cctgcaaagg	4320

RAW SEQUENCE LISTING DATE: 02/27/2006
PATENT APPLICATION: US/10/567,764 TIME: 14:43:11

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

```
250 cggcacaacc ccagtgccac gttgtgagtt ggatagttgt ggaaagagtc aaatggctct
                                                                         4380
252 cctcaagcgt attcaacaag gggctgaagg atgcccagaa ggtaccccat tgtatgggat
                                                                         4440
254 ctgatctggg gcctcggtgc acatgcttta catgtgttta gtcgaggtta aaaaacgtct
                                                                        4500
                                                                        4560
256 aggcccccg aaccacgggg acgtggtttt cctttgaaaa acacgattgc tcgagccatc
258 atggttegac cattgaactg categtegee gtgteecaaa atatggggat tggeaagaac
                                                                         4620
260 ggagacetae cetggeetee geteaggaae gagtteaagt aetteeaaag aatgaceaca
                                                                         4680
262 acctetteag tggaaggtaa acagaatetg gtgattatgg gtaggaaaac etggttetee
                                                                         4740
264 attcctgaga agaatcgacc tttaaaggac agaattaata tagttctcag tagagaactc
                                                                         4800
266 aaagaaccac cacgaggagc tcattttctt gccaaaagtt tggatgatgc cttaagactt
                                                                        4860
268 attgaacaac cggaattggc aagtaaagta gacatggttt ggatagtcgg aggcagttct
                                                                        4920
                                                                        4980
270 gtttaccagg aagccatgaa tcaaccaggc cacctcagac tctttgtgac aaggatcatg
272 caggaatttg aaagtgacac gtttttccca gaaattgatt tggggaaata taaacttctc
274 ccagaatacc caggcgtcct ctctgaggtc caggaggaaa aaggcatcaa gtataagttt
                                                                        5100
276 gaagtctacg agaagaaaga ctaacaggaa gatgctttca agttctctgc tccctccta
                                                                         5160
278 aagctatgca ttttttataa gaccatggga cttttgctgg ctttagatca taatcagcca
                                                                        5220
280 taccacattt gtagaggttt tacttgcttt aaaaaacctc ccacacctcc ccctgaacct
                                                                         5280
282 gaaacataaa atgaatgcaa ttgttgttgt taacttgttt attgcagctt ataatggtta
                                                                        5340
284 caaataaagc aatagcatca caaatttcac aaataaagca tttttttcac tgcattctag
                                                                        5400
286 ttqtqqtttq tccaaactca tcaatqtatc ttatcatqtc tqqatccccq qccaacqqtc
                                                                         5460
288 tggtgacccg gctgcgagag ctcggtgtac ctgagacgcg agtaagccct tgagtcaaag
                                                                         5520
290 acgtagtcgt tgcaagtccg caccaggtac tgatcatcga tgctagaccg tgcaaaagga
                                                                         5580
                                                                         5640
292 gagcctgtaa gcgggcactc ttccgtggtc tggtggataa attcgcaagg gtatcatggc
294 ggacgacegg ggttegaace eeggateegg eegteegeeg tgateeatee ggttaeegee
                                                                         5700
296 cgcgtgtcga acccaggtgt gcgacgtcag acaacggggg agcgctcctt ttggcttcct
                                                                        5760
                                                                        5820
298 tecaggegeg geggetgetg egetagettt tttggegage tegaattaat tetgeattaa
                                                                        5880
300 tgaatcggcc aacgcgcggg gagaggcggt ttgcgtattg ggcgctcttc cgcttcctcg
302 ctcactgact cgctgcgctc ggtcgttcgg ctgcggcgag cggtatcagc tcactcaaag
304 gcggtaatac ggttatccac agaatcaggg gataacgcag gaaagaacat gtgagcaaaa
                                                                        6000
306 ggccagcaaa aggccaggaa ccgtaaaaag gccgcgttgc tggcgttttt ccataggctc
                                                                        6060
308 egececetq acqaqeatea caaaaateqa egeteaagte aqaqqtqqeq aaacceqaca
                                                                        6120
310 ggactataaa gataccagge gttteceeet ggaageteee tegtgegete teetgtteeg
                                                                        6180
312 accetgeege ttaceggata cetgteegee ttteteeett egggaagegt ggegetttet
                                                                        6240
314 caatgeteac getgtaggta teteagtteg gtgtaggteg ttegeteeaa getgggetgt
                                                                        6300
316 qtqcacqaac cccccqttca qcccqaccqc tqcqccttat ccqqtaacta tcqtcttgag
                                                                        6360
318 tecaaecegg taagacaega ettategeea etggeageag eeaetggtaa eaggattage
                                                                         6420
320 agagcgaggt atgtaggcgg tgctacagag ttcttgaagt ggtggcctaa ctacggctac
                                                                        6480
                                                                        6540
322 actagaagga cagtatttgg tatctgcgct ctgctgaagc cagttacctt cggaaaaaaga
324 gttggtaget ettgateegg caaacaaace accgetggta geggtggttt ttttgtttge
                                                                        6600
326 aagcagcaga ttacgcgcag aaaaaaagga tctcaagaag atcctttgat cttttctacg
                                                                        6660
                                                                        6720
328 gggtctgacg ctcagtggaa cgaaaactca cgttaaggga ttttggtcat gagattatca
330 aaaaggatet teacetagat eettttaaat taaaaatgaa gttttaaate aatetaaagt
                                                                        6780
332 atatatgagt aaacttggtc tgacagttac caatgcttaa tcagtgaggc acctatctca
334 gegatetgte tatttegtte atceatagtt geetgaetee eegtegtgta gataactaeg
                                                                        6900
336 atacgggagg gcttaccatc tggccccagt gctgcaatga taccgcgaga cccacgctca
                                                                        6960
338 ccggctccag atttatcagc aataaaccag ccagccggaa gggccgagcg cagaagtggt
                                                                        7020
                                                                        7080
340 cctgcaactt tatccgcctc catccagtct attaattgtt gccgggaagc tagagtaagt
342 agttcgccag ttaatagttt gcgcaacgtt gttgccattg ctacaggcat cgtggtgtca
                                                                        7140
                                                                        7200
344 cgctcgtcqt ttqqtatqqc ttcattcaqc tccqqttccc aacqatcaaq gcqaqttaca
346 tgatccccca tgttgtgcaa aaaagcggtt agctccttcg gtcctccgat cgttgtcaga
                                                                        7260
```

RAW SEQUENCE LISTING DATE: 02/27/2006 PATENT APPLICATION: US/10/567,764 TIME: 14:43:11

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

348	agtaagttgg	ccgcagtgtt	atcactcatg	gttatggcag	cactgcataa	ttctcttact	7320
350	gtcatgccat	ccgtaagatg	cttttctgtg	actggtgagt	actcaaccaa	gtcattctga	7380
352	gaatagtgta	tgcggcgacc	gagttgctct	tgcccggcgt	caatacggga	taataccgcg	7440
354	ccacatagca	gaactttaaa	agtgctcatc	attggaaaac	gttcttcggg	gcgaaaactc	7500
356	tcaaggatct	taccgctgtt	gagatccagt	tcgatgtaac	ccactcgtgc	acccaactga	7560
		cttttacttt					7620
		agggaataag					7680
		gaagcattta					7740
		ataaacaaat					7800
		ccattattat					7860
		cgcgtttcgg	-				7920
		cttgtctgta		_			7980
		gcgggtgtcg					8040
	agagtgcac	3 333 3 3	333 33	3 33	3 3	3 2 3	8049
	<210> SEQ 1	ID NO: 6					
	<211> LENGT						
379	<212> TYPE:	: DNA					
380	<213> ORGAN	NISM: Artifi	icial				
382	<220> FEATU	JRE:					
383	<223> OTHER	R INFORMATIO	ON: Recombin	nant PRG4-Lu	ub:1 cDNA co	onstruct.	
	<400> SEQUE						
386	atggcatgga	aaacacttcc	catttacctq	ttgttgctgc	tgtctgtttt	cqtqattcag	60
		ctcaagattt	_				120
		gcaactgtga					180
	-	gcactgcgga				_	240
		gtgactgcga	_				300
		gtgcagaagt					360
		gagcatctca					420
	_	agactaagaa			_		480
		aagagtcctc				_	540
		cttccaaaaa					600
		agaagaacag					660
		gtggattgga					720
		ataaagtcag					780
		ttccacctaa					840
414	gagacaacag	ttgaaactaa	agaaactact	acaacaaata	aacagacttc	aactgatgga	900
416	aaagagaaga	ctacttccgc	taaagagaca	caaagtatag	agaaaacatc	tgctaaagat	960
		catctaaagt					1020
	_	tcaccactcc					1080
		aagagcccac					1140
424	cccgcaccta	ccacgacaaa	gtcagctcct	actacgccca	aagagccagc	gccgacgact	1200
	_	cggcacccac		_			1260
		cggaaacacc					1320
		ccactatcca		_			1380
		aagctcttga					1440
		ctaaacctga	_				1500
		cacctgaaac	_		-		1560
		aaactaccga			_		1620
		ataccacacc		-			1680
	3					-	•

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/27/2006 PATENT APPLICATION: US/10/567,764 TIME: 14:43:12

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

Invalid <213> Response:

. . .

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27 Seq#:28,29 VERIFICATION SUMMARYDATE: 02/27/2006PATENT APPLICATION: US/10/567,764TIME: 14:43:12

Input Set : A:\19003-002US1.txt

Output Set: N:\CRF4\02272006\J567764.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date